Drawing on Innovation
CENTRAL WIRE INDUSTRIES

▪ **Union, IL**

December 17, 2015

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement & Compliance Assurance Branch (LU – 9J)
77 West Jackson Blvd
Chicago, IL 60604

RE: September 2015 (Revised), October 2015 & November 2015 Monthly Progress Reports

Dear John:

Enclosed are electronic copies (CD-ROM) of the above Monthly Progress Reports along with attachments and certification.

If I can be of further assistance, please do not hesitate to call.

Best regards,

Gerry Ruopp
General Manager
Central Wire, Inc.
Union, Illinois 60180
P (815) 923-4928
gruopp@centralwire.com

Drawing on Innovation
CENTRAL WIRE INDUSTRIES

▪ **Union, IL**

August 24, 2015

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-9J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois Monthly Progress Reports for June & July 2015

Dear Mr. Nordine:

Enclosed please find the Monthly Progress Reports and all pertinent attachments (in CD format) for the Central Wire facility located in Union, Illinois for the month of June 2015 (revised) and July 2015.

If you have any comments or questions regarding these reports, please contact me at (815) 923-4928.

Sincerely,

Gerald Ruopp

General Manager

Central Wire, Inc.

Union, IL

Autumnwood ESH Consultants, LLC
6539 Autumnwood Court
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

28 May 2015

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-9J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois Monthly Progress Report for March 2015, Revision 1

Dear Mr. Nordine:

Enclosed please find Revision 1 of the Monthly Progress Report for the Central Wire facility located in Union, Illinois for the month of March 2015, revised in response to EPA comments.

The eDMR for the groundwater pump and treat facility and the laboratory analytical reports, which includes the effluent data used in the eDMR for March 2015, are also attached to this report.

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

Autumnwood ESH Consultants, LLC

John W. Thorsen, P.E.

JWT:jt

encl

cc:

Joyce Munie	IEPA
Robert Kay	USGS
Gerald W. Ruopp	Central Wire
Robert Johnson	Central Wire

MONTHLY PROGRESS REPORT
Central Wire Union, Illinois Site
March 2015

1. **Progress Made This Reporting Period** – This reporting period Central Wire continued the operation and maintenance of the groundwater extraction and treatment (pump & treat) system. Central Wire treated an average of 465,000 gallons per day with a maximum daily flow of 468,000 gallons per day and met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for March 2015 is attached to this report.

Maintenance on the tray aeration system will not be complete until the end of April as reported last month. This maintenance was delayed due to an accident that the welder had in February that will keep him out of work for six weeks. Central Wire hired a welder to complete the necessary work. As a result, the flows remained about the same volume in March as in February.

The laboratory analytical report for the pump and treat effluent noted that the groundwater pump & treat effluent samples arrived at the lab on March 19, 2015 at 3.2° C.

The groundwater level monitoring data from downgradient monitoring well DGW-2I continues to be collected. A report and plot of the winter water levels is attached. We retrieved the data logger because Central Sod has reported that it may begin irrigation in a couple of weeks. Over the four months of December 2014 through March 2015, the groundwater elevation varied between a high on March 1, 2015 of 815.817 feet above MSL to a low of 813.952 feet above MSL on March 17, 2015 for a variation of 1.865 feet.

Summary of Validated Data and Results – The monthly effluent sampling took place on March 18, 2015. The permit limitations and analytical results are shown below.

Central Wire Union Illinois Pump & Treat Discharge Analytical Results

Parameter	Effluent Limitation (Daily Maximum), µg/L	March 2015 Analytical Results, µg/L
1,1,1-Trichloroethane	20	<0.20
Trichloroethene	20	1.1
Tetrachloroethene	20	<0.17

The March NPDES analytical report is attached to this Monthly Progress Report.

In EPA's comment letter on the original March 2015 Monthly Progress Report, they inquired about data in the laboratory report for Well 1 and Well 2. As Non-responsive indicated in his May 7th email, these wells are the two pump & treat extraction wells (shown on the attached map). They are located just north of Highbridge Rd. on either side of North Union

Rd. and marked as EW-1 and EW-2. VOC samples have been collected in these wells on a quarterly basis (since 2007) so we can determine our VOC removal efficiencies.

Regarding the performance of the pump & treat system from 2009 – 2013 (years that separate samples were collected from the two wells up to the preparation of the Central Wire 2012 RCRA Status Report), the influent concentration for the VOCs with effluent limitations in the first eight months of 2013 included two sampling events (March and June). The average influent concentrations were 18, 18 and 31 µg/L for TCE, PCE and TCA, respectively. The average effluent concentrations from the pump & treat system were 0.624, 0.286 and 0.344 µg/L for TCE, PCE and TCA, respectively. These values result in treatment (VOC removal) efficiencies of 97%, 98% and 99% for TCE. PCE and TCA, respectively.

As noted above, these extraction well samples are collected at the end of each quarter at the same time the effluent sample is collected, analyzed by EPA Standard Method 8260B and reported along with the effluent data.

For extraction well 1, the concentrations of the three VOCs - 1,1,-TCA, TCE and PCE - have generally trended downward from 2009 to 2015. The data since 2009, when separate sample began being collected, through March 2015 along with plots of the data are attached to this report as Figures 2 and 3.

1,1,1-TCA has trended from 54 µg/L to 3 µg/L with no MCL exceedances. TCE has trended from 44 µg/L to 7.9 µg/L with all samples exceeding the MCL. PCE has trended from 17 µg/L to 2.8 µg/L with MCL exceedances from June 2009 to June 2011 and minor bumps over the MCL in December 2013 and June 2014.

For extraction well 2, the VOC concentrations have generally trended upward through December 2012 and generally trended downward since then, but there doesn't seem to be any consistent trend.

1,1,1-TCA has ranged from 81 to 2.9 µg/L with no values exceeding the MCL. TCE ranged from 42 to 1.2 µg/L, with all but the 1.2 µg/L above the MCL. PCE has ranged from 44 to 0.78 µg/L with MCL exceedances in June 2009 and from June 2010 to December 2014.

2. **Upcoming Events/Activities Planned** – Central Wire will continue to operate the existing remediation systems. Effluent samples will be collected and analyzed as required in our NPDES permit.

Planned maintenance on the tray aeration system should be completed in April, assuming we have some warmer days so the packed tower aerator will not freeze when the system is shut down to complete the maintenance on the tray aeration system.

Central Wire submitted a Work Plan to EPA on April 6, 2015 to better define the leading edge of the chlorinated plume by placing two Geoprobe borings 150 feet and 250 feet

northwest (downgradient) of GP-23 and collect samples at 27 feet, 57 and 85 feet bgs (designated as GP-25 and GP-26). This work will be conducted on April 8 and April 9, if needed.

3. **Anticipated Problem Areas and Recommended Solutions** – None.
4. **Key Personnel Changes** – None.
5. **Target and Actual Completion Dates** – This project has not deviated from the project schedule.

Autumnwood ESH Consultants, LLC
6539 Autumnwood Court
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

23 June 2015

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-9J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois Monthly Progress Report for April 2015, revision 1

Dear Mr. Nordine:

Enclosed please find the Monthly Progress Report for the Central Wire facility located in Union, Illinois for the month of April 2015.

The eDMR for the groundwater pump and treat facility and the laboratory analytical reports, which includes the effluent data used in the eDMR for April 2015, are also attached to this report.

The water level table and graph have been corrected for the April revised Monthly Progress Report

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

Autumnwood ESH Consultants, LLC

John W. Thorsen, P.E.

JWT:jt

encl

cc: Joyce Munie IEPA
Robert Kay USGS
Gerald W. Ruopp Central Wire
Robert Johnson Central Wire

MONTHLY PROGRESS REPORT
Central Wire Union, Illinois Site
April 2015

1. **Progress Made This Reporting Period** – This reporting period Central Wire continued the operation and maintenance of the groundwater extraction and treatment system. Central Wire treated an average of 435,000 gallons per day with a maximum daily flow of 453,000 gallons per day and met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for April 2015 is attached to this report.

The laboratory analytical report for the pump and treat effluent noted that the groundwater pump & treat effluent samples arrived at the lab on April 16, 2015 at 1.8° C.

The Central Sod Kunde Road irrigation well ran for a total of 26 hours from April 1 to May 4, 2015. The Route 176 pump ran for 5 hours during this period.

Summary of 2015 Irrigation Pumping Hours per Week at Central Sod Farms (April 1 through May 4, 2014)

Date of Hour Meter Reading	Route 176 Pump		Kunde Rd. Pump	
	Hour Meter Reading	Hours Pumped	Hour Meter Reading	Hours Pumped
4/01/2015	5454	0	3246	0
4/20/2015	5454	0	3251	5
4/27/2015	5457	3	3263	12
5/4/2015	5459	2	3272	9
Totals		5		26

The groundwater level monitoring data from down gradient monitoring well DGW-2I for April 2015 and precipitation over the month have been plotted and is attached to this report. The error found in the original submission of the "Water Level – Precip – 4-2015" of the April Monthly Progress Report, pointed out to Central Wire in the EPA comment letter, has been corrected. We needed a reference point below the top of water not at the top of water.

During April 2015, the groundwater elevation varied between a low of 814.206 feet above mean sea level (MSL) on April 2, 2015 to a high of 816.168 feet above MSL on April 11, 2015 for a variation of 1.96 feet. The attached plot graphically shows the acute relationship of rainfall to groundwater elevation with the 2.24 inch rainfall on April 9 and the subsequent 1.76 inch increase in the elevation of the water table at monitoring well DGW-2I. This is based on the water table elevation on April 8, 2015, a day with no precipitation (814.409 feet above MSL), compared to the high point of the curve on April 11, 2014 (816.168 feet above MSL). There was no precipitation recorded at the Marengo station on April 10 or 11, 2015.

Summary of Validated Data and Results – The monthly effluent sampling took place on April 15, 2015. The permit limitations and analytical results are shown below.

Central Wire Union Illinois Pump & Treat Discharge Analytical Results

Parameter	Effluent Limitation (Daily Maximum), mg/L	April 2015 2015 Analytical Results, mg/L
1,1,1-Trichloroethane	20	0.0014
Trichloroethene	20	0.0013
Tetrachloroethene	20	< 0.00017

The April NPDES analytical report is attached to this Monthly Progress Report.

In April 2015, Central Wire added two additional Geoprobe points to define the leading edge of the chlorinated plume. In January 2015, Central Wire added GP-23 and GP-24 and found one EPA Maximum Contaminant Limit (MCL) exceedance at GP-23 in the shallow sample at 27 feet below ground surface where 1,1-DCE was found at 8.6 µg/L, above the MCL of 7 µg/L.

As a result, EPA requested Central Wire to place two more Geoprobe locations down gradient from GP-23 and GP-24 and sample the South Branch Nursery irrigation well. Geoprobe locations labeled GP-25 and GP-26 were placed in April. Figure 2 showing the relative locations of each of these wells is attached to this report (John Nordine's comment letter requested we identify the location of the irrigation well). Central Wire sampled the groundwater at both Geoprobe locations at three depths (27, 57 and 85 feet below ground surface) and the irrigation well. The only detected chemicals of concern found were in GP-26S and were all below the MCLs:

- 1,1-Dichloroethane at 0.00082 J mg/L,
- cis 1,2-dichloroethene at 0.00070 J mg/L, and
- 1,1,1-Trichloroethane at 0.001 mg/L.

(Note: J designates that the test results were less than the reporting limit but greater than or equal to the method detection limit, and the concentration is an approximate value).

There were no detections in the irrigation well sample (IW, but labeled in the lab report as 1W).

Toluene, which is not a chemical of concern, was found in very low levels at GP-25D, GP-26D, and GP-26S. This is generally a laboratory contaminant; however, sources note that toluene is present in diesel exhaust and the Geoprobe rig was running during sample collection. In future Geoprobe sampling events, Central Wire will attempt to position the rig so sample collection can be accomplished up gradient from diesel exhaust.

It is also noted that the samples had a temperature of 5.7° C when they arrived at the lab, above the goal of 4° C. In SW-846, Method 8260 (Table 1A) specifies that Volatile Organic Compounds in water should be stored at a temperature of 4° C +/- 2° C for preservation.

This report also had environmental analytical results for the North Pond and South Pond. These ponds are Illinois EPA regulated seepage ponds for Central Wire's rinse waters from the annealing process, non-contact cooling water, boiler blowdown and storm water. The analytical report for these samples is attached to this Progress Report.

2 **Upcoming Events/Activities Planned** – Central Wire will continue to operate the existing remediation systems. Effluent samples will be collected and analyzed as required in our NPDES permit.

Planned maintenance on the tray aeration system was completed in the first week in May and is currently pumping at 820,000 gallons per day.

Semiannual RCRA groundwater monitoring well and residential well samples will be collected in June 2015.

3 **Anticipated Problem Areas and Recommended Solutions** – None.

4 **Key Personnel Changes** – None.

5 **Target and Actual Completion Dates** – This project has not deviated from the project schedule.

Autumnwood ESH Consultants, LLC
6539 Autumnwood Court
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

5 June 2015

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-9J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois Monthly Progress Report for May 2015

Dear Mr. Nordine:

Enclosed please find the Monthly Progress Report for the Central Wire facility located in Union, Illinois for the month of May 2015.

The eDMR for the groundwater pump and treat facility and the laboratory analytical report, which includes the effluent data used in the eDMR for May 2015, are also attached to this report.

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

Autumnwood ESH Consultants, LLC

John W. Thorsen

John W. Thorsen, P.E.

JWT:jt

encl

cc:	Joyce Munie	IEPA
	Robert Kay	USGS
	Gerald W. Ruopp	Central Wire
	Robert Johnson	Central Wire

MONTHLY PROGRESS REPORT
Central Wire Union, Illinois Site
May 2015

1. **Progress Made This Reporting Period** – This reporting period Central Wire continued the operation and maintenance of the groundwater extraction and treatment system. Central Wire treated an average of 756,000 gallons per day with a maximum daily flow of 820,000 gallons per day and met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for May 2015 is attached to this report.

The laboratory analytical report for the pump and treat effluent noted that the groundwater pump & treat effluent samples arrived at the lab on May 15, 2015 at 1.0° C.

The Central Sod Kunde Road irrigation well ran for a total of 17 hours from April 27 to June 1, 2015. The Route 176 pump ran for 2 hours during this period.

Summary of 2015 Irrigation Pumping Hours per Week at Central Sod Farms (April 27 through June 1, 2014)

Date of Hour Meter Reading	Route 176 Pump		Kunde Rd. Pump	
	Hour Meter Reading	Hours Pumped	Hour Meter Reading	Hours Pumped
4/27/2015	5457	0	3263	0
5/4/2015	5459	2	3272	2
5/11/2015	5459	0	3272	0
5/18/2015	5459	0	3273	1
5/26/2015	5459	0	3282	9
6/1/2015	5459	0	3287	5
Totals		2		17

The groundwater level monitoring data from downgradient monitoring well DGW-2I for May 2014 and precipitation over the month have been graphed/plotted and is attached to this report. Over May 2015, the groundwater elevation varied between a high on May 13th of 815.746 feet above MSL to a low of 814.516 on May 26th, resulting in a 1.23 foot variation over the month.

Summary of Validated Data and Results – The monthly effluent sampling took place on May 14, 2015. The permit limitations and analytical results are shown below.

Central Wire Union Illinois Pump & Treat Discharge Analytical Results

Parameter	Effluent Limitation (Daily Maximum), mg/L	May 2015 2015 Analytical Results, mg/L
1,1,1-Trichloroethane	20	<0.0002
Trichloroethene	20	0.0011
Tetrachloroethene	20	<0.00017

The May NPDES analytical report is attached to this Monthly Progress Report.

2. **Upcoming Events/Activities Planned** – Central Wire will continue to operate the existing remediation systems. Effluent samples will be collected and analyzed as required in our NPDES permit.

   Semiannual RCRA groundwater monitoring well and residential well samples will be collected in June 10 and on June 11, if needed.

3. **Anticipated Problem Areas and Recommended Solutions** – None.

4. **Key Personnel Changes** – None.

5. **Target and Actual Completion Dates** – This project has not deviated from the project schedule.

Autumnwood ESH Consultants, LLC
6539 Autumnwood Court1
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

March 20, 2015

Mr. John Nordine
U.S. EPA Region 5, LU-9J
77 West Jackson Blvd.
Chicago, IL 60604-3590

RE: Central Wire Union, IL Work Plan, Revision 1, to Complete the Definition of the Leading Edge of the Chlorinated Plume Downgradient from Central Wire
EPA ID No. ILD005178975
Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Nordine:

Central Wire has undertaken the 2014 RCRA CMI Field Investigation as defined in the Work Plan submitted to U.S. EPA in October 2014. The analytical results were submitted to you on November 14, 2014.

EPA indicated that there seemed to be a gap in the definition of the downgradient edge of the plume at GP-8, with Maximum Contaminant Limits (MCLs)exceeded at GP-8S for Trichloroethene (TCE) and at GP-8I for 1,1 Dichloroethene (DCE). In addition, values found in GP-19I were approaching the MCLs for DCE and TCE. As a result EPA asked Central Wire to better define the downgradient edge of the chlorinated plume.

Central Wire proposed and EPA approved the placement of GP-23, to be located approximately 150 ft. northwest downgradient from GP-8, and GP-24 150 feet downgradient from GP-9 (see Figure 1, attached). That work utilized the same approach we have taken since at least 2008, taking samples at 27, 57 and 85 feet below ground surface (BGS). This work was done on January 19 and 20, 2015.

The results of those samples are shown in Table 1, below. The complete Laboratory Report was sent to EPA with the February Monthly Progress Report. These results indicate that there was one exceedance of MCLs at GP-23S where DCE was found at 8.3 µg/L vs. the MCL of 7 µg/L.

Since the MCL was exceeded, EPA has asked Central Wire to better define the downgradient edge of the chlorinated plume downgradient of GP-23. Central Wire proposed the placement of GP-25 to be located 150 ft. northwest or downgradient from GP-23 (see Figure I, attached) and utilize the same sampling regimen, i.e., collect samples for Volatile Organic Compounds at 27 ft., 57 ft. and 85 ft. bgs and analyze those samples utilizing EPA Standard Method 8260B.

EPA, in its Work Plan Approval Letter dated March 17, 2015 for the placement of GP-25, requested that Central Wire place an additional Geoprobe point (GP-26, see Figure 1) about 100 feet northwest of GP-25 and to collect a sample at the South Branch Nursery irrigation well. Central Wire agrees to placing GP-25 and GP-26, collecting three groundwater samples at each location at 27 ft., 57 ft. and 85 ft. bgs, as well as collecting a sample for VOC analysis from the South Branch Nursery irrigation well.

GP-26 will be approximately 600 feet from the South Branch irrigation well.

The approximate locations of GP-25 and GP-26 are as follows:

Geoprobe Location	Latitude	Longitude
GP-25	42° 15.135'	88° 32.865'
GP-26	42° 15.147'	88° 32.881'

Central Wire proposes to do this sampling on April 9 – 10, 2015.

Please call me if you have any questions or concerns.

Very truly yours,
Autumnwood ESH Consultants

John W. Thorsen, P.E.
Principal

cc: G. Ruopp Central Wire

encl

JWT/jt

Table 1

Results of Geoprobe Testing for Central Wire

January 19 - 20, 2015

		1,1-DCE	1,1-DCA	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	Acetone
	MCLs	7	-	200	70	100	-
GP-23	S	**8.6**	6.1	-	5.7	0.51 J	-
	I	-	-	-	-	-	-
	D	0.61 J	0.88 J	-	-	-	-
FB-1		-	-	-	-	-	8.2
GP-24	S	-	-	3.7	-	-	-
	I	-	0.6 J	-	1.1	-	-
	D	-	-	-	-	-	-
FB-2		-	-	-	-	-	

- = No Established MCL
- = Not Detected for Samples
S = Shallow (27 ft.)
I = Intermediate (57 ft.)
D = Deep (85 ft.)
FB = Field Blank

Autumnwood ESH Consultants, LLC
6539 Autumnwood Court
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

20 March, 2015

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-9J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois Monthly Progress Report for February 2015, Revision 1

Dear Mr. Nordine:

Enclosed please find the revised Monthly Progress Report for the Central Wire facility located in Union, Illinois for the month of February 2015.

The eDMR for the groundwater pump and treat facility and the laboratory analytical reports, which includes the effluent data used in the eDMR for February 2015, are also attached to this report.

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

Autumnwood ESH Consultants, LLC

John W. Thorsen, P.E.

JWT:jt

encl

cc:

Joyce Munie	IEPA
Robert Kay	USGS
Thomas Hanewald	Central Wire
Gerald W. Ruopp	Central Wire
Robert Johnson	Central Wire

MONTHLY PROGRESS REPORT
Central Wire Union, Illinois Site
February 2015

1. **Progress Made This Reporting Period** – This reporting period Central Wire continued the operation and maintenance of the groundwater extraction and treatment system. Central Wire treated an average of 468,000 gallons per day with a maximum daily flow of 486,000 gallons per day and met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for February 2015 is attached to this report. EPA requested that Central Wire change the eDMR Perchloroethene to report as <0.00017 mg/L instead of 0.00017 mg/L. Mr. Bob Johnson of Central Wire tried to modify the report after it was submitted and the eDMR would not accept the change. Central Wire will be mindful of this as future eDMR reports are prepared.

   Maintenance on the tray aeration system was not completed by the end of February due to an accident that their welder suffered. Central Wire is in the process of obtaining quotes from outside subcontractors to complete the necessary work which now will include welding, sandblasting, and recoating the tank. The work will be scheduled during weather at or above freezing to prevent the packed tower from freezing up. As a result, necessary repairs will not be completed until the end of April. The pump & treat flows for March and April will remain at about the same volume as in February until the maintenance is complete.

   The laboratory analytical report for the pump and treat system noted that the groundwater effluent samples arrived at the lab on February 13, 2015 at 2.6° C. The NPDES analytical report for February is attached.

   The groundwater level monitoring data from down gradient monitoring well DGW-2I continues to be collected. Central Wire has left a water level recorder in monitoring well DGW-2I and reset the recorder to collect the groundwater level measurements every hour. This data logger will be retrieved in the spring when Central Sod deploys the diesel engine that drives the irrigation well pumps.

Summary of Validated Data and Results – The monthly effluent sampling took place on February 12, 2015. The permit limitations and analytical results are shown below.

Central Wire Union Illinois Pump & Treat Discharge Analytical Results

Parameter	Effluent Limitation (Daily Maximum), µg/L	February 2015 Analytical Results, µg/L
1,1,1-Trichloroethane	20	1.2
Trichloroethene	20	1.2
Tetrachloroethene	20	<0.17

2. **Upcoming Events/Activities Planned** – Central Wire will continue to operate the existing remediation systems. Effluent samples will be collected and analyzed as required in our NPDES permit.

Planned repairs and maintenance on the tray aeration system should be completed by the end of April.

In March, Central Wire will submit a Work Plan to EPA to more discretely define the leading edge of the chlorinated plume by placing two Geoprobe borings 150 feet and 250 feet northwest (downgradient) of GP-23 and to collect samples at 27 feet, 57 and 85 feet below grade surface. These new wells will be designated as GP-25 and GP-26.

3. **Anticipated Problem Areas and Recommended Solutions** – None.

4. **Key Personnel Changes** – None.

5. **Target and Actual Completion Dates** – This project has not deviated from the project schedule.

Autumnwood ESH Consultants, LLC
6539 Autumnwood Court1
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

March 6, 2015

Mr. John Nordine
U.S. EPA Region 5, LU-9J
77 West Jackson Blvd.
Chicago, IL 60604-3590

RE: Central Wire Union, IL Work Plan to Complete the Definition of the Leading Edge of the Chlorinated Plume Downgradient from Central Wire
ILD005178975

Dear Mr. Nordine:

Central Wire has undertaken the 2014 RCRA CMI Field Investigation as defined in the Work Plan submitted to U.S. EPA in October 2014. The analytical results were submitted to you on November 14, 2014.

EPA indicated that there seemed to be a gap in the definition of the downgradient edge of the plume at GP-8, with Maximum Contaminant Limits (MCLs)exceeded at GP-8S for Trichloroethene (TCE) and at GP-8I for 1,1 Dichloroethene (DCE). In addition, values found in GP-19I were approaching the MCLs for DCE and TCE. As a result EPA asked Central Wire to better define the downgradient edge of the chlorinated plume.

Central wire Proposed and EPA approve the placement of GP-23 150 ft. northwest (downgradient from GP-8 and GP-24 150 feet downgradient from GP-9. That work utilized the same approach we have taken since at least 2008 taking samples at 27, 57 and 85 feet below ground surface and was done on January 19 and 20, 2015.

The results of those samples are shown in Table 1, below. The complete Laboratory Report was sent to EPA with the February Monthly Progress Report. These results indicate that there was one exceedance of MCLs at GP-23S where DCE was found at 8.3 µg/L vs. the MCL of 7 µg/L.

Since the MCL was exceeded, EPA has asked Central Wire to better define the downgradient edge of the chlorinated plume downgradient of GP-23. Central Wire is proposing to place GP-25 150 ft. northwest or downgradient from GP-23 (see Figure I, attached) and utilize the same sampling regimen, i.e., collect samples for Volatile Organic Compounds at 27 ft., 57 ft. and 85 ft and analyze those samples utilizing EPA Standard Method 8260B.

Central Wire proposes to do this sampling in April but, as of this time, have not heard back from the GeoProbe service provider regarding his schedule.

Please call me if you have any questions or concerns.

Very truly yours,
Autumnwood ESH Consultants

John W. Thorsen, P.E.
Principal

cc: G. Ruopp Central Wire

encl

JWT/jt

Autumnwood ESH Consultants, LLC
6539 Autumnwood Court
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

5 March, 2015

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-9J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois Monthly Progress Report for February 2015

Dear Mr. Nordine:

Enclosed please find the Monthly Progress Report for the Central Wire facility located in Union, Illinois for the month of February 2015.

The eDMR for the groundwater pump and treat facility and the laboratory analytical reports, which includes the effluent data used in the eDMR for February 2015, are also attached to this report.

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

Autumnwood ESH Consultants, LLC

John W. Thorsen, P.E.

JWT:jt

encl

cc:	Joyce Munie	IEPA
	Robert Kay	USGS
	Thomas Hanewald	Central Wire
	Gerald W. Ruopp	Central Wire
	Robert Johnson	Central Wire

MONTHLY PROGRESS REPORT
Central Wire Union, Illinois Site
February 2015

1. **Progress Made This Reporting Period** – This reporting period Central Wire continued the operation and maintenance of the groundwater extraction and treatment system. Central Wire treated an average of 468,000 gallons per day with a maximum daily flow of 486,000 gallons per day and met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for February 2015 is attached to this report.

   Maintenance on the tray aeration system was not complete at the end of February due to an accident that the welder had in February that will keep him out of work for six weeks. Central Wire is looking for a welder to complete the necessary work. As a result, the flows will remain at about the same volume in March as in February until the maintenance is complete which is expected in March. Central Wire will complete the necessary welding during weather at or above freezing so the packed tower does not freeze up during this maintenance activity.

   The laboratory analytical report for the pump and treat effluent noted that the groundwater pump & treat effluent samples arrived at the lab on February 13, 2015 at 2.6° C.

   The groundwater level monitoring data from downgradient monitoring well DGW-2I continues to be collected. Central Wire has left a water level recorder in monitoring well DGW-2I and reset the recorder to collect the groundwater level measurements every hour. We will retrieve this data logger in the spring when Central Sod deploys the diesel engines that power the irrigation well pumps.

   EPA has requested that Central Wire submit a Work Plan by March 17, 2015 to more precisely define the leading edge of the chlorinated plume. EPA and Central Wire agreed in 2014 that the leading edge of the plume would not exceed any Maximum Contaminant Limits (MCLs) of the chemicals of concern. The sample collected in January 2015 at GP-23S had a value for 1,1-Dichloroethene (DCE) that was 8.6 µg/L which exceeds the MCL for DCE of 7 µg/L. Central Wire will propose one boring 150 feet northwest (downgradient) of GP-23 and collect samples at 27 feet below ground surface (bgs), and 57 and 85 feet bgs.

   Summary of Validated Data and Results – The monthly effluent sampling took place on December 18, 2014. The permit limitations and analytical results are shown below.

Central Wire Union Illinois Pump & Treat Discharge Analytical Results

Parameter	Effluent Limitation (Daily Maximum), µg/L	January 2015 Analytical Results, µg/L
1,1,1-Trichloroethane	20	1.2
Trichloroethene	20	1.2
Tetrachloroethene	20	<0.17

The February NPDES analytical report is attached to this Monthly Progress Report.

One sample exceeded one MCL in this sampling event. The sample collected at GP-23S exceeded the MCL for 1,1-Dichloroethene at 8.6 µg/L vs the MCL of 7 µg/L. 1,1-DCE is a degradation product of both Tetrachloroethene (PCE) and Trichloroethene (TCE) and indicates that, at this leading edge of the chlorinated plume, the original solvent, TCE, is in the process of degrading to ethene, a relatively harmless gas used to ripen fruit and as a general inhalation anesthetic.

The laboratory report for this sampling event is attached to this Monthly Progress Report.

2. **Upcoming Events/Activities Planned** – Central Wire will continue to operate the existing remediation systems. Effluent samples will be collected and analyzed as required in our NPDES permit.

Planned maintenance on the tray aeration system should be completed in March, assuming we have some warmer days so the packed tower aerator will not freeze when the system is shut down to complete the maintenance on the tray aeration system and assuming we can locate a welder to complete the needed maintenance.

In March, Central Wire will submit a Work Plan to EPA to more discretely define the leading edge of the chlorinated plume by placing one boring 150 feet northwest (downgradient) of GP-23 and collect samples at 27 feet bgs, and 57 and 85 feet bgs.

3. **Anticipated Problem Areas and Recommended Solutions** – None.

4. **Key Personnel Changes** – None.

5. **Target and Actual Completion Dates** – This project has not deviated from the project schedule.

Autumnwood ESH Consultants, LLC
6539 Autumnwood Court
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

5 February, 2015

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-9J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois Monthly Progress Report for January 2015

Dear Mr. Nordine:

Enclosed please find the Monthly Progress Report for the Central Wire facility located in Union, Illinois for the month of January 2015.

The eDMR for the groundwater pump and treat facility and the laboratory analytical reports, which includes the effluent data used in the eDMR for January 2015 are also attached to this report.

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

Autumnwood ESH Consultants, LLC

John W. Thorsen

John W. Thorsen, P.E.

JWT:jt

encl

cc:	Joyce Munie	IEPA
	Robert Kay	USGS
	Thomas Hanewald	Central Wire
	Gerald W. Ruopp	Central Wire
	Robert Johnson	Central Wire

MONTHLY PROGRESS REPORT
Central Wire Union, Illinois Site
January 2015

1. **Progress Made This Reporting Period** – This reporting period Central Wire continued the operation and maintenance of the groundwater extraction and treatment system. Central Wire treated an average of 481,000 gallons per day with a maximum daily flow of 482,000 gallons per day and met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for January 2015 is attached to this report.

   Maintenance on the tray aeration system was not complete at the end of January so the flows will remain at about the same volume in February as in January until the maintenance is complete which is expected in February. Central Wire is awaiting warmer weather for system shut down so the packed tower does not freeze up during this maintenance activity.

   The laboratory analytical report for the pump and treat effluent noted that the groundwater pump & treat effluent samples arrived at the lab on January 22, 2015 at 1.3° C. There were also additional samples collected In the South Branch Nursery to better define the leading edge of the plume. Samples were collected at GP-23 and GP-24 (see attached drawing) at 27 feet, 57 feet and 85 feet below the ground surface. These samples and two field blanks arrived at the lab on January 21, 2015 at 2.8° C.

   The groundwater level monitoring data from downgradient monitoring well DGW-2I continues to be collected. Central Wire has left a water level recorder in monitoring well DGW-2I and reset the recorder to collect the groundwater level measurements every hour. We will retrieve this data logger in the spring when Central Sod deploys the diesel engines that power the irrigation well pumps.

2. **Summary of Validated Data and Results** – The monthly effluent sampling took place on December 18, 2014. The permit limitations and analytical results are shown below.

Central Wire Union Illinois Pump & Treat Discharge Analytical Results

Parameter	Effluent Limitation (Daily Maximum), µg/L	January 2015 Analytical Results, µg/L
1,1,1-Trichloroethane	20	1.5
Trichloroethene	20	1.4
Tetrachloroethene	20	<0.17

The January NPDES analytical report is attached to this Monthly Progress Report.

Central Wire also received the data from the January Geoprobe sampling event which is summarized in the table below. The field stabilization data is attached as Table 1.

Central Wire Union Illinois Geoprobe Analytical Results, January 2015

(All values are in µg/L)

	1,1-DCE	1,1-DCA	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	Acetone
MCLs	7	-	200	70	100	-
GP-23S	**8.6**	6.1	-	5.7	0.51 J	-
GP-23I	-	-	-	-	-	-
GP-23D	0.61 J	0.88 J	-	-	-	-
FB-1	-	-	-	-	-	8.2
GP-24S	-	-	3.7	-	-	-
GP-24I	-	0.6 J	-	1.1	-	-
GP-24D	-	-	-	-	-	-
FB-2	-	-	-	-	-	

- = Not Detected

MCL = EPA's Maximum Contaminant Limit (or groundwater standard)

1,1-DCE = 1,1-Dichloroethene

1,1-DCA = 1,1-Dichloroethane

1,1,1-TCA = 1,1,1-Trichloroethane

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.

One sample exceeded one MCL in this sampling event. The sample collected at GP-23S exceeded the MCL for 1,1-Dichloroethene at 8.6 µg/L vs the MCL of 7 µg/L. 1,1-DCE is a degradation product of both Tetrachloroethene (PCE) and Trichloroethene (TCE) and indicates that, at this leading edge of the chlorinated plume, the original solvent, TCE, is in the process of degrading to ethene, a relatively harmless gas used to ripen fruit and as a general inhalation anesthetic.

The laboratory report for this sampling event is attached to this Monthly Progress Report.

3. **Upcoming Events/Activities Planned** – Central Wire will continue to operate the existing remediation systems. Effluent samples will be collected and analyzed as required in our NPDES permit.

Planned maintenance on the tray aeration system should be completed in February, assuming we have some warmer days so the packed tower aerator will not freeze when the system is shut down to complete the maintenance on the tray aeration system.

4. **Anticipated Problem Areas and Recommended Solutions** – None.

5. **Key Personnel Changes** – None.

6. **Target and Actual Completion Dates** – This project has not deviated from the project schedule.